Catalogue of American Amphibians and Reptiles.

HIGHTON, RICHARD. 1986. *Plethodon fourchensis.*

Plethodon fourchensis Duncan and Highton Fourche Mountain salamander

Plethodon ouachitae: Blair and Lindsay, 1965 (part).

Plethodon fourchensis Duncan and Highton, 1979:109. Type-locality, "1.5 km west, 0.3 km south of the top of Wolf Pinnacle Mountain, Polk County, Arkansas." Holotype, National Museum of Natural History (USNM) 204835, an adult male, collected on 9 October 1976 by Robert R. Beatson, S. Blair Hedges, Richard Highton and Daniel M. Rosenberg.

- CONTENT. No subspecies are recognized.

- DEFINITION AND DIAGNOSIS. *Plethodon fourchensis* is a member of the *P. glutinosus* group of eastern *Plethodon* as defined biochemically by Highton and Larson (1979). Adults range from 60–78 mm (body) and 110–178 mm (total) length. It is characterized by having two longitudinal rows of dorsal white spots that are much larger than those on any other species of the *P. glutinosus* group. As in all the other species of the group, the modal number of trunk vertebrae is 17.

- DESCRIPTIONS. Blair and Lindsay (1965) and Duncan and Highton (1979) gave descriptions.

- ILLUSTRATIONS. A drawing of the dorsal pattern (identified as that of *Plethodon ouachitae*) is in Conant (1975).

- DISTRIBUTION. *Plethodon fourchensis* is known only from higher parts of Fourche and Irons Fork Mountains, Polk and Scott counties, Arkansas.

- FOSSIL RECORD. None.

- PERTINENT LITERATURE. Blair and Lindsay (1965) were the first to note the distinctness of this form, but they did not recognize it taxonomically, regarding it only as the "Buck Knob type" of *P. ouachitae.* They reported that it hybridizes with the Rich Mountain type of *P. ouachitae* near the west end of Fourche Mountain. Duncan and Highton (1979) studied the genetic relationships of the large *Plethodon* of the Ouachita Mountains and found that *P. fourchensis* is genetically different from *P. ouachitae, P. caddoensis* and *P. glutinosus* and recognized *P. fourchensis* taxonomically as a separate species. They also provided information on variation in size, coloration and parasitism by chigger mites. They confirmed that *P. ouachitae* and *P. fourchensis* hybridize in a narrow contact zone. Highton and Larson (1979) compared electrophoretic variation in 29 proteins of *P. fourchensis* with that in all 25 other species of *Plethodon* recognized at that time. Maxson et al. (1979) and Maxson et al. (1984) compared its albumin immunologically to albumins of several other species of *Plethodon.* Larson (1984) estimated the time of divergence of *P. fourchensis* and *P. ouachitae* based on a time-calibration of protein divergence.

- ETYMOLOGY. *P. fourchensis* is named for Fourche Mountain, Arkansas.

COMMENT

P. fourchensis is one of the most distinctive eastern *Plethodon* in color pattern. It is sympatric with *P. glutinosus* throughout its range but is parapatric with *P. ouachitae* and allopatric with *P. caddoensis.* The last two species are its closest relatives.

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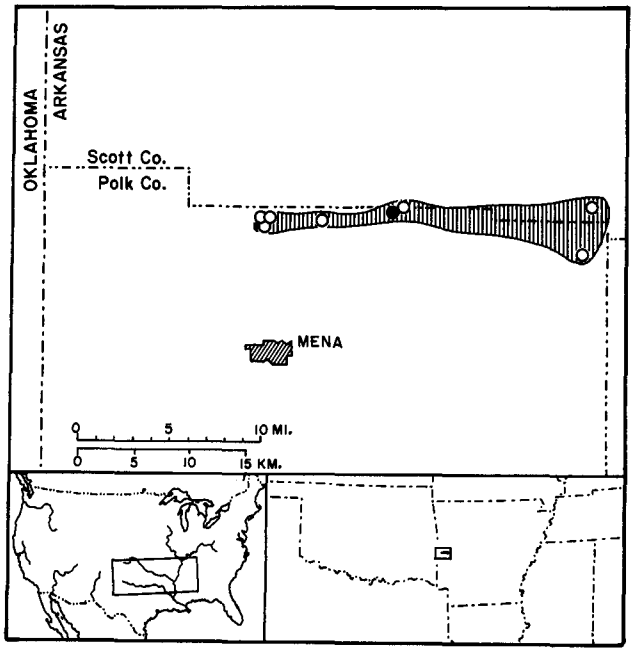

MAP. The solid circle shows the type-locality. Open circles indicate other records.

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